House of Representatives



General Assembly

File No. 109

February Session, 2008

Substitute House Bill No. 5600

House of Representatives, March 20, 2008

The Committee on Environment reported through REP. ROY, R. of the 119th Dist., Chairperson of the Committee on the part of the House, that the substitute bill ought to pass.

AN ACT CONCERNING CONNECTICUT GLOBAL WARMING SOLUTIONS.

Be it enacted by the Senate and House of Representatives in General Assembly convened:

- Section 1. Section 22a-200 of the general statutes is repealed and the
- 2 following is substituted in lieu thereof (*Effective October 1, 2008*):
- As used in sections 22a-200 to 22a-200b, inclusive, as amended by
- 4 this act, sections 3, 5, 6 and 9 of this act and section 4a-67h:
- 5 (1) "Direct emissions" means emissions from sources that are owned
- 6 or operated, in whole or in part, by an entity or facility, including, but
- 7 not limited to, emissions from factory stacks, manufacturing processes
- 8 and vents, and company owned or leased motor vehicles;
- 9 (2) "Entity" means a person, as defined in section 22a-2, that owns or
- 10 operates, in whole or in part, a source of greenhouse gas emissions
- 11 from a generator of electricity or a commercial or industrial site, which
- source may include, but not be limited to, a transportation fleet;

13 (3) "Facility" means a building, structure or installation located on 14 any one or more contiguous or adjacent properties of an entity;

- 15 (4) "Greenhouse gas" means any chemical or physical substance that 16 is emitted into the air and that the Commissioner of Environmental
- 17 Protection may reasonably anticipate will cause or contribute to
- 18 climate change, including, but not limited to, carbon dioxide, methane,
- 19 nitrous oxide, hydrofluorocarbons, perfluorocarbons and sulfur
- 20 hexafluoride;
- 21 (5) "Indirect emissions" means emissions associated with the
- 22 consumption of purchased electricity, steam and heating or cooling by
- 23 an entity or facility.
- Sec. 2. Section 22a-200a of the general statutes is repealed and the
- 25 following is substituted in lieu thereof (*Effective October 1, 2008*):
- 26 [(a) It shall be the goal of the state to reduce emissions of
- 27 greenhouse gas in order to make an appropriate contribution to
- achieving the regional goals of reducing emissions of greenhouse gas
- 29 to those levels emitted in 1990, which reduction to occur not later than
- 30 January 1, 2010, and to levels ten per cent below the 1990 levels not
- 31 later than January 1, 2020. The Commissioner of Environmental
- 32 Protection shall consult with the Conference of New England
- 33 Governors and Eastern Canadian Premiers to establish a date for the
- 34 long-term regional goal of reducing the emissions of greenhouse gas
- 35 by seventy-five to eighty-five per cent below 2001 levels. If the
- 36 Conference of New England Governors and Eastern Canadian
- 37 Premiers has not established a date for such long-term regional goal by
- 38 January 1, 2007, the date for reaching such goal shall be 2050.
- 39 (b) Not later than January 1, 2005, the Governor's Steering
- 40 Committee on Climate Change, established in November 2002, shall
- 41 develop a multisector, comprehensive climate change action plan, with
- 42 the opportunity for public comment, which plan shall contain the
- 43 policies and programs necessary to achieve the state's goals for the
- 44 reduction of greenhouse gas emissions by 2010 and 2020. The steering

committee shall notify each member of the General Assembly of the development of such plan and of such opportunity for public comment. Not later than January 1, 2005, the steering committee shall submit, in accordance with section 11-4a, such plan to the joint standing committees of the General Assembly having cognizance of matters relating to the environment, energy, transportation and commerce. Not later than January 15, 2005, such committees shall convene a joint informational public hearing for the purpose of reviewing such plan. Not later than February 1, 2005, such committees shall meet for the purpose of consideration of endorsement of such plan. Not later than February 15, 2005, the steering committee shall submit a final plan to such committees.

- (c) Not later than January 1, 2008, the steering committee shall develop an amended climate change action plan, with the opportunity for public comment, for achieving the state's contribution towards reaching the long-term regional goal established pursuant to subsection (a) of this section. The steering committee shall submit, in accordance with section 11-4a, such plan to the joint standing committee of the General Assembly having cognizance of matters relating to the environment.
- (d) Not later than December 1, 2005, and annually thereafter, the Commissioner of Environmental Protection, in collaboration with the commissioners of other state agencies and the steering committee, shall submit a report to the joint standing committee of the General Assembly having cognizance of matters relating to the environment on the progress made in achieving the goals established in subsection (a) of this section and to evaluate the appropriateness of the climate change action plans developed pursuant to subsections (b) and (c) of this section in achieving such goals.]
- (a) The state shall reduce the level of emissions of greenhouse gas:
- 75 (1) Not later than January 1, 2020, to a level at least ten per cent 76 below the level emitted in 1990; and

77 (2) Not later than January 1, 2050, to a level at least eighty per cent 78 below the level emitted in 2001.

(b) The Commissioner of Environmental Protection, in consultation with the Department of Public Utility Control, shall establish emission levels and limits associated with the electric sector based on consumption and purchases of electricity from the regional electric power grid. In establishing such emission levels and limits, the commissioner shall take into account the Regional Greenhouse Gas Initiative and the renewable portfolio standards established under section 16-245a of the 2008 supplement to the general statutes.

(c) On or before January 1, 2012, the Secretary of the Office of Policy and Management, the Commissioners of Environmental Protection, Transportation and Administrative Services shall each adopt regulations, in accordance with the provisions of chapter 54, to implement the provisions of this section as such provisions relate to each commissioner's agency. Such regulations shall be designed to: (1) Minimize costs and maximize the total benefit to the state, encourage innovation, stimulate investment in low greenhouse gas technologies and encourage early action to reduce greenhouse gas emissions; (2) ensure that compliance with the regulations furthers rather than conflicts with federal and state ambient air quality standards and goals to reduce toxic air contaminant emissions; (3) weigh overall societal potential benefits, including reductions in other air pollutants, diversification of energy sources, and other benefits to the economy, environment and public health; (4) ensure that activities undertaken to comply with the regulations do not disproportionately impact lowincome and minority communities; (5) minimize the administrative burden of implementing and complying with the regulations; (6) consider the significance of the contribution of each source or category of sources to state-wide greenhouse gas emissions; and (7) result in greenhouse gas emission reductions that are real, permanent, quantifiable, verifiable and enforceable. Such regulations shall provide for an evaluation of policies and programs by the Department of Environmental Protection based upon a greenhouse gas emissions cost

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of ten dollars per ton of carbon dioxide, to be adjusted for inflation, or

- the current Regional Greenhouse Gas Initiative or federal allowance
- price, whichever is higher. The commissioner may adjust such cost to
- 114 reflect the projected costs of carbon over the lifetime of a proposed
- 115 project.
- 116 (d) The Office of Policy and Management and the Governor's
- 117 Steering Committee on Climate Change shall monitor and enforce
- 118 compliance with this section and the regulations adopted pursuant to
- this section.
- (e) Not later than January 1, 2012, and every five years thereafter,
- the Secretary of the Office of Policy and Management, in consultation
- 122 with the Commissioner of Environmental Protection and the
- 123 Governor's Steering Committee on Climate Change, shall report, in
- accordance with the provisions of section 11-4a, on the progress made
- in achieving the emissions reductions pursuant to subsection (a) of this
- 126 section and an assessment of the latest scientific information and
- 127 relevant data regarding global climate change and the status of
- 128 emissions reduction achieved in other states and countries to the
- 129 General Assembly.
- 130 (f) The Secretary of the Office of Policy and Management and
- 131 Commissioners of Transportation, Administrative Services and
- 132 Environmental Protection shall each adopt regulations in accordance
- with the provisions of chapter 54, as needed, to meet the emissions
- limits required by subsection (a) of this section.
- Sec. 3. Section 22a-200b of the general statutes is repealed and the
- following is substituted in lieu thereof (*Effective October 1, 2008*):
- 137 (a) The Commissioner of Environmental Protection shall work to
- 138 establish a regional greenhouse gas registry for greenhouse gas
- emissions and a regional reporting system in conjunction with other
- states or a regional consortium.
- (b) Not later than April 15, 2006, and annually thereafter, the owner

or operator of any facility that is required to report air emissions data to the Department of Environmental Protection pursuant to Title V of the federal Clean Air Act and that has stationary emissions sources that emit greenhouse gases shall report to the regional registry direct stack emissions of greenhouse gases from such sources. The owner or operator shall report all greenhouse gas emissions in a type and format that the regional registry can accommodate.

- [(c) The commissioner shall consider, on an annual basis, requiring the expansion of reporting to the regional greenhouse gas registry to include, but not be limited to, other facilities or sectors, greenhouse gases, or direct and indirect emissions. A decision for or against an expansion of reporting and an explanation of such decision shall be included in the annual report required pursuant to subsection (d) of section 22a-200a.]
- (c) Not later than April 15, 2009, the owner or operator of any facility that has stationary emissions sources that emit greenhouse gases in excess of ten thousand tons in carbon dioxide equivalents shall report to the regional greenhouse gas registry direct emissions of greenhouse gases from such sources, on a form prescribed by the commissioner. Such owner or operator shall report all greenhouse gas emissions in a type and format that the regional greenhouse gas registry can accommodate. Each year the commissioner shall consider whether to expand the reporting requirements to include other entities or facilities.
 - (d) Not later than July 1, 2006, the commissioner shall provide for the voluntary reporting of emissions of greenhouse gas to the regional greenhouse gas registry by entities and facilities that are not required to submit information pursuant to subsections (b) and (c) of this section but which do so on a voluntary basis. The greenhouse gas emissions reported shall be of a type and format that the regional greenhouse gas registry can accommodate.
- 173 (e) If a regional greenhouse gas registry is not developed and 174 implemented by April 15, 2007, the commissioner shall evaluate the

175 feasibility of establishing and administering a state-wide greenhouse

- gas registry for the collection of emissions data pursuant to subsections
- 177 (b) and (c) of this section. If a regional greenhouse gas registry is
- developed after the commissioner establishes a state-wide greenhouse
- gas registry, the reporting requirements in subsections (b) and (c) of
- 180 this section shall revert to the regional greenhouse gas registry in
- accordance with said subsections (b) and (c).
- (f) Where appropriate and feasible, the state shall incorporate the
- 183 standards and protocols developed by the national Climate Registry,
- 184 established by the Northeast States for Coordinated Air Use
- 185 <u>Management and the Northeast States Center for a Clean Air Future.</u>
- [(f)] (g) Not later than July 1, 2006, and triennially thereafter, the
- 187 commissioner shall publish a state greenhouse gas emissions inventory
- that includes comprehensive estimates of the quantity of greenhouse
- 189 gas emissions in the state for the last three years in which data is
- 190 available.

- 191 [(g)] (h) The commissioner may adopt regulations, in accordance
- 192 with the provisions of chapter 54, to implement the provisions of this
- 193 section. Nothing in section 4a-67h, 22a-200, as amended by this act,
- 194 22a-200a, as amended by this act, or this section shall limit a state
- 195 agency from adopting any regulation within its authority in
- accordance with the provisions of chapter 54.
- 197 Sec. 4. Section 22a-200c of the 2008 supplement to the general
- 198 statutes is repealed and the following is substituted in lieu thereof
- 199 (Effective October 1, 2008):
- 200 (a) The Commissioner of Environmental Protection shall adopt
- 201 regulations, in accordance with chapter 54, to implement the Regional
- 202 Greenhouse Gas Initiative.
- 203 (b) The Department of Environmental Protection, in consultation
- 204 with the Department of Public Utility Control, shall auction all
- 205 emissions allowances and invest the proceeds on behalf of electric

206 ratepayers in energy conservation, load management and Class I 207 renewable energy programs and such allowances may be used to cover 208 the reasonable administrative costs of state agencies associated with 209 the adopting of regulations in accordance with section 22a-200a, as 210 amended by this act. In making such investments, the Commissioner 211 of Environmental Protection shall consider strategies that maximize 212 cost effective reductions in greenhouse gas emission. Allowances shall 213 be auctioned under the oversight of the Department of Public Utility 214 Control and the Department of Environmental Protection by a 215 contractor or trustee on behalf of the electric ratepayers.

- (c) The regulations adopted pursuant to subsection (a) of this section may include provisions to cover the reasonable administrative costs associated with the implementation of the Regional Greenhouse Gas Initiative in Connecticut and to fund assessment and planning of measures to reduce emissions and mitigate the impacts of climate change. Such costs shall not exceed seven and one-half per cent of the total projected allowance value. Such regulations may also set aside a portion of the allowances to support the voluntary renewable energy provisions of the Regional Greenhouse Gas Initiative model rule and combined heat and power.
- (d) Any allowances or allowance value allocated to the energy conservation load management program on behalf of electric ratepayers shall be incorporated into the planning and procurement process in sections 16a-3a of the 2008 supplement to the general statutes and 16a-3b of the 2008 supplement to the general statutes.
- Sec. 5. (NEW) (*Effective October 1, 2008*) (a) In order to achieve the emission reduction requirements established in section 22a-200a of the general statutes, as amended by this act, the state shall implement the following:
- 235 (1) (A) Not later than January 1, 2009, the Commissioner of 236 Environmental Protection, in consultation with the Commissioner of 237 Transportation and the Secretary of the Office of Policy and 238 Management, may adopt regulations, in accordance with chapter 54 of

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the general statutes, to establish a low-carbon fuel standard for all motor vehicle and home heating fuels sold in the state.

- (B) The Department of Environmental Protection shall not establish such standard until the department assesses whether a sufficient analytical framework exists for measuring full lifecycle greenhouse gas emissions, including direct and indirect emissions of greenhouse gas caused by changes in land use or other factors. Such assessment shall include, but not be limited to, the modeling tools developed by the California Air Resources Board and the United States Environmental Protection Agency. For the purposes of this subdivision, "sufficient analytical framework" means that the measurement tool used accurately measures actual lifecycle greenhouse gas emissions.
- (C) The fuel full lifecycle analysis shall include all stages of fuel and feedstock production and distribution, from feedstock generation or extraction to distribution, delivery and use of the finished fuel to the ultimate consumer, and shall adjust the mass values for all greenhouse gas emissions relative to such emissions' relative global warming potential.
- (D) Any such regulations adopted pursuant to this subdivision shall mandate the use of a sufficient analytical framework and shall establish a declining standard for greenhouse gas emissions measured in CO2 equivalent grams per unit of fuel energy sold sufficient to achieve not less than a ten per cent reduction in the lifecycle carbon intensity of all motor vehicle and home heating fuels sold in the state by 2020. The low carbon fuel standard shall address environmental issues associated with the production of new fuels, including, but not limited to, sustainability, the impact on water, air and soil quality, land use change and food production. The relevant agency shall consider the standards established by other states when adopting any such regulations.
- (2) The Department of Transportation shall investigate the potential for the expansion of high-speed and light-rail passenger service and expanded freight rail service within the Northeast region. Such

investigation shall include, but not be limited to, the development of new rail corridors, opportunity to reduce vehicle miles traveled, and an analysis of the economic and environmental benefits and effect on greenhouse gas emissions of such expanded passenger and freight rail service. Not later than June 1, 2009, the Commissioner of Transportation shall report, in accordance with the provisions of section 11-4a of the general statutes, regarding the results of such investigation to the General Assembly.

- (3) The Department of Environmental Protection shall work with interested states and Canadian provinces to develop and implement market-based compliance mechanisms to achieve the greenhouse gas levels and limits established by section 22a-200a of the general statutes, as amended by this act, including, but not limited to, cap and trade programs.
- (4) All facilities owned or leased by the state shall offset any greenhouse gas emissions resulting from the removal of forests, associated biomass and soil carbon through investments in land use-based carbon offsets within the state. The Secretary of the Office of Policy and Management, in consultation with the Commissioner of Environmental Protection, shall develop standards and verification protocols to ensure that such offsets occur and that such offsets are permanent, enforceable and verifiable.
- (5) The Secretary of the Office of Policy and Management, in consultation with the Commissioner of Environmental Protection, shall develop a model municipal smart growth code that municipalities may adopt. Such model code shall encourage open space preservation, mixed land uses, compact building design, the availability of public transit and other low-carbon emission transportation alternatives, and shall emphasize strengthening and directing development towards existing infrastructure. The secretary shall investigate potential incentives to encourage municipalities to adopt the model code and shall report, in accordance with the provisions of section 11-4a of the general statutes, to the General Assembly regarding its findings no

later than January 1, 2009.

Sec. 6. (NEW) (Effective October 1, 2008) (a) No load-serving entity in the state of Connecticut shall sign a power purchase agreement or capacity contract for, and the Department of Environmental Protection shall not issue a permit for, any new baseload fossil fuel power plant that commences operations after June 1, 2008, that exceeds the carbon dioxide emissions rate of one thousand one hundred pounds per megawatt-hours for the total emissions associated with producing electricity, including useful thermal output, except that the Commissioner of Environmental Protection may reduce such rate to account for advances in technology.

- (b) The Department of Environmental Protection may adopt regulations in accordance with the provisions of chapter 54 of the general statutes to create monitoring and verification requirements to ensure the capture and sequestration of carbon dioxide. Any such regulations shall be consistent with any federal guidelines concerning permanent sequestration of carbon dioxide. Greenhouse gas emissions that are sequestered permanently, pursuant to any such regulations, shall be excluded from the determination of whether the greenhouse gas emission limits established under section 22a-200 of the general statutes, as amended by this act, have been met.
- Sec. 7. Section 22a-1b of the general statutes is repealed and the following is substituted in lieu thereof (*Effective October 1, 2008*):
- The General Assembly directs that, to the fullest extent possible:
- 329 (a) Each state department, institution or agency shall review its 330 policies and practices to insure that they are consistent with the state's 331 environmental policy as set forth in sections 22a-1 and 22a-1a.
 - (b) (1) Each sponsoring agency shall, prior to a decision to prepare an environmental impact evaluation pursuant to subsection (c) of this section for an action which may significantly affect the environment, conduct an early public scoping process.

(2) To initiate an early public scoping process, the sponsoring agency shall provide notice on a form that has been approved by the Council on Environmental Quality, which shall include, but not be limited to, the date, time and location of any proposed public scoping meeting and the duration of the public comment period pursuant to subdivision (3) of this subsection, to the council, the Office of Policy and Management and any other state agency whose activities may reasonably be expected to affect or be affected by the proposed action.

- (3) Members of the public and any interested state agency representatives may submit comments on the nature and extent of any environmental impacts of the proposed action during the thirty days following the publication of the notice of the early public scoping process pursuant to this section.
- (4) A public scoping meeting shall be held at the discretion of the sponsoring agency or if twenty-five persons or an association having not less than twenty-five persons requests such a meeting within ten days of the publication of the notice in the Environmental Monitor. A public scoping meeting shall be held not less than ten days following the notice of the proposed action in the Environmental Monitor. The public comment period shall remain open for at least five days following the meeting.
- (5) A sponsoring agency shall provide the following at a public scoping meeting: (A) A description of the proposed action; (B) a description of the purpose and need of the proposed action; (C) a list of the criteria for a site for the proposed action; (D) a list of potential sites for the proposed action; (E) the resources of any proposed site for the proposed action; (F) the environmental limitations of such sites; (G) potential alternatives to the proposed action; and (H) any information the sponsoring agency deems necessary.
- (6) Any agency submitting comments or participating in the public scoping meeting pursuant to this section shall include, to the extent practicable, but not be limited to, information about (A) the resources of any proposed site for the proposed action, (B) any plans of the

commenting agency that may affect or be affected by the proposed action, (C) any permits or approvals that may be necessary for the proposed action, and (D) any appropriate measures that would mitigate the impact of the proposed action, including, but not limited to, recommendations as to preferred sites for the proposed action or alternatives for the proposed action that have not been identified by the sponsoring agency.

- (7) The sponsoring agency shall consider any comments received pursuant to this section or any information obtained during the public scoping meeting in selecting the proposed actions to be addressed in the environmental impact evaluation and shall evaluate in its environmental impact evaluation any substantive issues raised during the early public scoping process that pertain to a proposed action or site or alternative actions or sites.
- (c) Each state department, institution or agency responsible for the primary recommendation or initiation of actions which may significantly affect the environment shall in the case of each such proposed action make a detailed written evaluation of its environmental impact before deciding whether to undertake or approve such action. All such environmental impact evaluations shall be detailed statements setting forth the following: (1) A description of the proposed action which shall include, but not be limited to, a description of the purpose and need of the proposed action, and, in the case of a proposed facility, a description of the infrastructure needs of such facility, including, but not limited to, parking, water supply, wastewater treatment and the square footage of the facility; (2) the environmental consequences of the proposed action, including cumulative, direct and indirect effects which might result during and subsequent to the proposed action; (3) any adverse environmental effects which cannot be avoided and irreversible and irretrievable commitments of resources should the proposal be implemented; (4) alternatives to the proposed action, including the alternative of not proceeding with the proposed action and, in the case of a proposed facility, a list of all the sites controlled by or reasonably available to the

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sponsoring agency that would meet the stated purpose of such facility; (5) an evaluation of the proposed action's consistency and each alternative's consistency with the state plan of conservation and development, an evaluation of each alternative including, to the extent practicable, whether it avoids, minimizes or mitigates environmental impacts, and, where appropriate, a description of detailed mitigation measures proposed to minimize environmental impacts, including, but not limited to, where appropriate, a site plan; (6) an analysis of the short term and long term economic, social and environmental costs and benefits of the proposed action; (7) the effect of the proposed action on the use and conservation of energy resources; [and] (8) a description of the effects of the proposed action on sacred sites or archaeological sites of state or national importance; and (9) an analysis of the effect of the proposed action on greenhouse gas and other air pollutant emissions and the economic and safety needs of the state. In the case of an action which affects existing housing, the evaluation shall also contain a detailed statement analyzing (A) housing consequences of the proposed action, including direct and indirect effects which might result during and subsequent to the proposed action by income group as defined in section 8-37aa and by race, and (B) the consistency of the housing consequences with the long-range state housing plan adopted under section 8-37t. As used in this section, "sacred sites" and "archaeological sites" shall have the same meaning as in section 10-381 and "greenhouse gas" shall have the same meaning as in section 22a-200, as amended by this act.

(d) (1) The Council on Environmental Quality shall publish a document at least once a month to be called the Environmental Monitor which shall include any notices the council receives pursuant to sections 22a-1b to 22a-1i, inclusive, as amended by this act, and shall include notice of the opportunity to request a public scoping meeting. Filings of such notices received by five o'clock p.m. on the first day of each month shall be published in the Environmental Monitor that is issued not later than ten days thereafter.

(2) The Council on Environmental Quality shall post the

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437 Environmental Monitor on its Internet site and distribute a

- subscription or a copy of the Environmental Monitor by electronic mail
- 439 to any state agency, municipality or person upon request. The council
- 440 shall also provide the Environmental Monitor to the clerk of each
- 441 municipality for posting in its town hall.
- Sec. 8. Section 29-256a of the 2008 supplement to the general statutes
- 443 is repealed and the following is substituted in lieu thereof (Effective
- 444 October 1, 2008):
- 445 (a) On and after January 1, 2008, the State Building Inspector and
- 446 the Codes and Standards Committee shall revise the State Building
- 447 Code to require that buildings and building elements, including
- 448 residential, be designed to provide optimum cost-effective energy
- efficiency over the useful life of the building. [Such revision shall meet
- 450 the American Society of Heating, Refrigerating and Air Conditioning
- 451 Engineers Standard 90.1 for new construction.]
- (b) Notwithstanding subsection (a) of this section, the State Building
- 453 Inspector and the Codes and Standards Committee shall revise the
- 454 State Building Code to require that any (1) building, except a
- 455 residential building with no more than four units, constructed after
- 456 January 1, 2009, that is projected to cost not less than five million
- 457 dollars, and (2) renovation to any building, except a residential
- 458 building with no more than four units, started after January 1, 2010,
- 459 that is projected to cost not less than two million dollars shall be built
- or renovated using building construction standards consistent with or
- 461 exceeding the silver building rating of the Leadership in Energy and
- 462 Environmental Design's rating system for new commercial
- 463 construction and major renovation projects, as established by the
- 464 United States Green Building Council, or an equivalent standard,
- including, but not limited to, a two-globe rating in the Green Globes
- 466 USA design program. The inspector and the committee shall provide
- 467 for an exemption for any building if the Institute for Sustainable
- Energy finds, in a written analysis, that the cost of such compliance
- significantly outweighs the benefits.

470 (c) Not later than January 1, 2009, the State Building Inspector and 471 the Codes and Standards Committee shall revise the State Building Code to include the most stringent model energy standards available. 472 473 Such revisions shall meet the most recent version of the International 474 Energy Conservation Code standards or the American Society of 475 Heating, Refrigerating and Air Conditioning Engineers Standard 90.1 476 for new construction, as appropriate. After said revision, the State 477 Building Inspector and the Codes and Standards Committee shall 478 revise the State Building Code not later than six months after the

- publication of any revision to such standards.
- (d) Not later than January 1, 2009, the Secretary of the Office of 480 481 Policy and Management, in consultation with the Commissioners of 482 Public Works, Environmental Protection and Public Safety, shall adopt 483 regulations, in accordance with the provisions of chapter 54, for any new construction or major renovation of a state-owned or leased 484 485 building, to create building construction energy standards that exceed 486 the standard set forth in the American Society of Heating, 487 Refrigerating and Air Conditioning Engineers Standard 90.1 by not 488 less than twenty per cent. The secretary may revise such regulations as 489 necessary.
- Sec. 9. (*Effective from passage*) (a) On or before July 1, 2008, the Commissioner of Administrative Services shall establish, in accordance with the provisions of chapter 67 of the general statutes, the class of certified energy inspector within the Office of Policy and Management.
- 494 (b) On or before September 1, 2008, the Office of Policy and 495 Management shall develop a training and certification program for the 496 class established under subsection (a) of this section.
 - Sec. 10. (NEW) (*Effective January 1, 2009*) No certificate of occupancy shall be issued for a new construction project or major renovation project until such project has been certified by a certified energy inspector as being in compliance with the energy standards established in accordance with section 29-256a of the 2008 supplement to the general statutes, as amended by this act.

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This act shall take effect as follows and shall amend the following					
sections:					
Section 1	October 1, 2008	22a-200			
Sec. 2	October 1, 2008	22a-200a			
Sec. 3	October 1, 2008	22a-200b			
Sec. 4	October 1, 2008	22a-200c			
Sec. 5	October 1, 2008	New section			
Sec. 6	October 1, 2008	New section			
Sec. 7	October 1, 2008	22a-1b			
Sec. 8	October 1, 2008	29-256a			
Sec. 9	from passage	New section			
Sec. 10	January 1, 2009	New section			

ENV Joint Favorable Subst.

The following fiscal impact statement and bill analysis are prepared for the benefit of members of the General Assembly, solely for the purpose of information, summarization, and explanation, and do not represent the intent of the General Assembly or either chamber thereof for any purpose:

OFA Fiscal Note

State Impact:

Agency Affected	Fund-Effect	FY 09 \$	FY 10 \$
Department of Environmental	EQ - Cost	601,250	799,500
Protection			
Department of Environmental	EQ - Revenue	Potential	Potential
Protection	Gain	\$1.5M-	\$1.5M-
		\$3.3M	\$3.3M
Treasurer, Debt Serv.	GF - Potential	See Below	See Below
	Cost		
Treasurer, Debt Serv.	TF - Potential	See Below	See Below
	Cost		
Dept. of Administrative Services	GF - Cost	None	70,300
Various State Agencies	GF - Cost	See Below	See Below
Department of Transportation	GF - Cost	See Below	See Below
DPS- DFEBS	GF - Cost	Uncertain	Uncertain
Various State Agencies	Various - Cost	Potential	Potential
		Significant	Significant
Policy & Mgmt., Off.	GF - Cost	945,000	973,350
Comptroller Misc. Accounts	GF - Cost	239,652	570,675
(Fringe Benefits) ¹			

Note: EQ=Environmental Quality Fund; GF=General Fund; TF=Transportation Fund

Municipal Impact:

Municipalities	Effect	FY 09 \$	FY 10 \$
All Municipalities	Cost	Uncertain	Uncertain

Explanation

The Department of Environmental Protection's (DEP) Environmental Quality (EQ) Fund would incur costs of about \$600,000

¹ The fringe benefit costs for state employees are budgeted centrally in the Miscellaneous Accounts administered by the Comptroller. The first year fringe benefit costs for new positions do not include pension costs. The estimated first year fringe benefit rate as a percentage of payroll is 25.36%. The state's pension contribution is based upon the prior year's certification by the actuary for the State

in FY 09 and about \$800,000 in FY 10. These costs include fringe benefits paid for by the EQ fund of about 25% in FY 09 and about 59% in FY 10. This would result in ten new Environmental Analyst II positions for DEP to adopt, implement and enforce regulations required by the bill. The cost for one Environmental Analyst II is \$60,125, including fringe benefits.

The actual EQ Fund balance for FY 07 is \$11.6 million and the estimated fund balance for FY 08 is \$10.5 million. The EQ fund is used to fund a variety of activities in support of environmental quality programs, especially those related to permit issuance, monitoring, and enforcement and is funded mainly through permit and license fees.

DEP could also experience revenues of about \$1.5 million to \$3.5 million as a result of annual auction revenues generated from the program described in Section 4a of the bill. These revenues are intended for use by DEP to fund various state agencies to adopt and implement regulations to reduce Green House Gas (GHG) emissions, for Regional Greenhouse Gas Initiative (RGGI) implementation costs on a statewide and regional basis, and to fund climate change adaptation-related tasks and studies. These requirements for DEP to fund these various initiatives could significantly reduce the amount of revenue retained by DEP.

Section 2 will result in significant costs to the Office of Policy and Management (OPM) to monitor and enforce compliance with the state law and regulations related to the GHG caps. It is anticipated this will require three additional staff with associated salaries and other expenses of \$270,000.

Section 5 will result in a significant cost to OPM. It is anticipated OPM will require two additional positions, with salary and associated other expenses of \$180,000 to develop standards and verification protocols to ensure that offsets occur and that such offsets are

Employees Retirement System (SERS). The SERS fringe benefit rate is 33.27%, which when combined with the rate for non-pension fringe benefits totals 58.63%.

permanent, enforceable and verifiable. Additionally, it is anticipated that OPM will require one position, with salary and associated other expenses of \$90,000 to develop a model municipal smart growth code that municipalities can adopt.

Section 7 requires state agencies conducting a Connecticut Environmental Policy Act (CEPA) impact analysis to include an analysis of the effect of the proposed action on green house gases (GHG) and other air pollutant emissions and the state's economic and safety needs. The cost in additional consultant fees is estimated to be \$60,000 for each CEPA impact analysis, including: (1) \$10,000 for analyzing GHG and other air pollutant emissions, and (2) \$50,000 for analyzing the state's economic and safety needs.

Section 8 requires OPM, in consultation with DEP, to adopt regulations for any new construction or major renovation of state-owned or leased buildings for standards that exceed the standards set forth in the American Society of Heating, Refrigerating and Air Conditioning Engineers Standard 90.1 by not less than 20 percent. It is anticipated OPM will require two additional staff with salary and associated expenses of \$180,000.

Section 8 also raises energy efficiency standards by at least 20% above the current level for new construction or state-owned or leased space when a major renovation is done. This is expected to result in costs to the General Fund (GF) or Special Transportation Fund (STF) for the following reasons:

New construction projects are financed with bond funds so any increase in construction costs due to increased energy efficiency standards would result in an increase in GF or STF debt service costs.

There would be GF or STF operating budget or debt service costs for the renovation of state-owned space, depending whether the project is financed with operating funds or bond funds;

If the landlord agrees to pay for the energy improvements on leased

space it would result in increased GF or STF operating budget costs because costs of tenant improvements are usually included in the cost to lease the space; if the state pays for the cost of the improvements there would be increased GF or STF operating budget costs, and if the landlord refuses to permit the energy improvements or to pay for them there would be a GF or STF operating budget cost to move the state agency to new leased space.

These additional GF and STF costs could be offset by savings in the operations of the new buildings renovated space over their lifetime, especially in heating and ventilation costs.

The bill requires the Department of Administrative Services (DAS) to adopt regulations concerning GHG caps and emission limits by January 1, 2012. DAS does not currently have the technical subject matter expertise to handle this requirement. Therefore, DAS will need to hire a Legislative & Administrative Advisor 1 (MP 59), with a salary of approximately \$70,300, to research and write these regulations.

Section 8 also requires the State Building Inspector and the Codes and Standards Committee to revise the State Building Code to meet the most recent version of the International Energy Conservation Code standards or the American Society of Heating, Refrigerating and Air Conditioning Engineers Standard 90.1 for new construction, as appropriate. The Codes and Standards Committee is currently in the process of revising the Code to meet these standards and as such this would result in no additional fiscal impact to the Division of Fire, Emergency, and Building Services within the Department of Public Safety.

This section would also require that any new construction or major renovation of a state-owned or leased building exceed the American Society of Heating, Refrigerating and Air Conditioning Engineers Standard 90.1 by at least twenty percent. This would result in a potential significant cost to the state as the construction and renovation costs associated with such projects would increase commensurate with the enhanced standard.

Sections 9 and 10 require OPM to develop a training and certification program for the class of certified energy inspectors. It is anticipated that OPM will hire two staff, with salary and associated expenses of \$225,000, to train existing state and municipal building inspectors.

Section 10 requires, as of January 1, 2009, that a certified energy inspector certify any new construction or major renovation project prior to the issuance of a certificate of occupancy. It is unclear whether this energy inspection would be performed at the state level or if local building inspectors would be trained to perform these duties, therefore the impact cannot be determined.

The Out Years

The annualized ongoing fiscal impact identified above would continue into the future subject to inflation.

OLR Bill Analysis sHB 5600

AN ACT CONCERNING CONNECTICUT GLOBAL WARMING SOLUTIONS.

SUMMARY:

This bill mandates a wide range of measures to reduce greenhouse gas (GHG) emissions. The bill affects the power generating, transportation and building sectors.

Current law sets state GHG emission reduction goals for the years 2010, 2020, and 2050. The bill requires the state to meet its 2020 and 2050 goals and makes a number of other changes designed to reduce GHG emissions. It:

- 1. requires the Department of Environmental Protection (DEP) commissioner to establish emission limits for the electric industry;
- 2. expands reporting requirements by requiring owners and operators of certain stationary emission sources to report GHG emissions to the regional greenhouse gas registry;
- 3. requires the state building inspector and the Codes and Standards Committee to revise the State Building Code to include the most stringent energy standards available;
- 4. creates more stringent building construction energy standards, and requires the Office of Policy and Management (OPM), after consulting with DEP and the departments of Public Works and Public Safety, to adopt regulations for new construction or major renovation of a state-owned or -leased building;

5. prohibits issuance of a certificate of occupancy for new construction or major renovation unless it meets the more stringent energy standards, and creates a new class of certified energy inspector;

- 6. requires state-owned or -leased facilities to offset their GHG emissions through investments in land use-based carbon offsets in Connecticut;
- 7. requires the Transportation Department to investigate possible expanded high speed and light rail passenger service and expanded freight rail service in the northeast;
- 8. requires OPM secretary to develop a model municipal smart growth code;
- 9. requires state agencies, when conducting a Connecticut Environmental Policy Act (CEPA) environmental impact evaluation, to include an analysis of the effect of the proposed action on GHG and other air pollutant emissions and the state's economic and safety needs;
- 10. allows proceeds from the auction of emission allowances be to used to cover certain DEP administrative costs;
- 11. authorizes the creation, by regulation, of a low-carbon fuel standard for motor vehicle and home heating fuels;
- 12. requires DEP to work with other states and Canadian provinces to develop market-based compliance mechanisms to achieve the GHG limits; and
- 13. makes other changes.

The bill also prohibits load-serving entities from signing a power purchase agreement for, and bars DEP from permitting, a new baseload fossil fuel power plant that begins operating after June 1, 2008 if it exceeds the carbon dioxide (CO₂) emissions rate of 1,100 pounds per

megawatt-hour for the total emissions associated with producing electricity.

EFFECTIVE DATE: October 1, 2008 except the creation of the class of certified energy inspector takes effect upon passage, and the requirement that certain building projects meet energy stands before getting a certificate of occupancy takes effect January 1, 2009.

SETTING GHG EMISSION LIMITS

Current law sets goals of reducing state GHG emissions to (1) 1990 levels by January 1, 2010 and (2) 10% below 1990 levels by January 1, 2020. It sets a default goal of reducing emissions between 75% and 85% below 2001 levels by 2050. The bill eliminates the 2010 goal and instead requires the state to reduce its GHG emissions to (1) at least 10% below 1990 levels by January 1, 2020 and (2) at least 80% below 2001 levels by January 1, 2050.

Agency Regulations

It requires, by January 1, 2012, the OPM secretary, commissioners of DEP, and the departments of Administrative Services (DAS) and Transportation (DOT) to each adopt regulations concerning the GHG caps as they pertain to each agency, and to meet the bill's emission limits. The regulations must provide for DEP evaluation of policies and programs based upon a GHG emissions cost of \$10 per ton of CO₂, adjusted for inflation, or the current RGGI or federal allowance price, whichever is more. The DEP commissioner may adjust the cost to reflect the projected cost of carbon over a proposed project's lifetime.

These regulations must:

- minimize cost and maximize the total benefit to the state, encourage innovation, stimulate investment in low GHG technology and encourage early action to reduce GHG emissions;
- 2. ensure that compliance with the regulations furthers federal and state air pollution standards and goals to reduce emissions of

toxic air pollutants;

3. weigh potential benefits to society, including reducing other air pollutants, diversifying energy sources, and other benefits to the economy, environment, and public health;

- 4. ensure that activities taken to comply with the regulations do not disproportionately impact low-income and minority communities;
- 5. minimize the administrative burden of implementing and complying with the regulations;
- 6. consider the significance of the contribution of each source or category of sources to statewide GHG emissions; and
- 7. result in GHG emission reductions that are real, permanent, quantifiable, verifiable, and enforceable.

OPM and the Governor's Steering Committee on Climate Change (steering committee) must monitor and enforce compliance with the law and regulations.

DEP must work with interested states and Canadian provinces to develop and implement mechanisms, including cap and trade programs, to achieve compliance with the bill's GHG limits.

The bill authorizes DEP to adopt regulations creating monitoring and verification requirements to ensure the capture and sequestration of CO₂. The regulations must be consistent with federal guidelines concerning permanent sequestration. Permanently sequestered GHG emissions must be excluded when determining if the state has met its GHG emission limits.

Reporting Requirements

The bill eliminates a requirement that DEP, in collaboration with other state agencies and the steering committee, submit an annual report to the Environment Committee on progress made in achieving

the state's Climate Change Action Plan goals. It instead requires that, by January 1, 2012 and every five years thereafter, the OPM secretary, after consulting with the DEP commissioner and the steering committee, report to the legislature on (1) the progress made in achieving the emission reductions and (2) an assessment of the latest scientific information and relevant data on climate change and the status of emission reductions in other states and countries.

GHG Emissions Reporting

Under current law, owners and operators of stationary emission sources that report air emissions data to DEP under Title V of the Clean Air Act must annually report their GHG emissions to the regional GHG registry. The bill requires, by April 15, 2009, that owners and operators of stationary emission sources that emit more than 10,000 tons of CO₂ equivalents report to the regional GHG registry on a DEP form. They must report all GHG emissions in a format the registry can accommodate. The DEP commissioner must annually consider whether to expand the reporting requirements to other entities or facilities. The bill eliminates a requirement that she annually explain her decision to the legislature.

It requires the state (apparently DEP), where appropriate and feasible, to incorporate the standards and protocols developed by the national climate registry established by the Northeast States for Coordinated Air Use Management (NESCAUM) and the Northeast States Center for a Clean Air Future.

ELECTRIC SECTOR

Electric Sector Emission Levels

The bill requires DEP, in consultation with the Department of Public Utility Control, to establish emission levels for the electric sector, based on consumption and electricity purchases from the regional electric power grid. The DEP commissioner must consider the Regional Greenhouse Gas Initiative (RGGI) and the state's renewable portfolio standards when establishing these limits.

Use of Emissions Allowances

Connecticut is a member of RGGI, which is a multistate initiative to design and implement a cap-and-trade program to reduce power plant carbon dioxide emissions in the northeast (see BACKGROUND). By law, the state must adopt regulations to implement the RGGI cap-and-trade program (see BACKGROUND). By law, after implementing this program, DEP, in consultation with DPUC, must auction all emission allowances and invest the proceeds on behalf of electric ratepayers in energy conservation, load management, and Class I renewable energy programs. The state may use up to 7.5% of the total projected allowance value for reasonable administrative costs associated with implementing RGGI. The bill specifically allows these allowances to be used to cover the reasonable administrative costs state agencies incur adopting the GHG emission regulations the bill requires.

Fossil Fuel Power Plant Restrictions

The bill prohibits (1) a load-serving entity from signing a power purchase agreement or capacity contract for, and (2) DEP from permitting, a new base load fossil fuel power plant that begins operating after June 1, 2008, if it emits CO₂ at a rate greater than 1,100 pounds per megawatt-hour for the emissions associated with producing electricity, including useful thermal output. The DEP commissioner may reduce the rate to account for technological advances. Load-serving entities are not defined in state law or regulation, but include utilities and other certain entities under federal law.

BUILDINGS AND LAND USE

Tightening the State Building Code

By law, the state building inspector and the Codes and Standards Committee must revise the State Building Code to require that buildings, including residential buildings, are designed to provide optimum cost-effective energy efficiency during their useful life. Current law requires the revision to meet the American Society of Heating, Refrigerating, and Air Conditioning Engineers Standard 90.1 for new construction (Standard 90.1).

The bill eliminates the requirement that these buildings meet this standard, and instead requires, by January 1, 2009 the inspector and committee to revise the code to include the most stringent model energy standards available. These revisions must meet either the most recent version of the International Energy Conservation Code standards or Standard 90.1, as appropriate. The inspector and committee must revise the code no later than six months after these standards are revised.

State Buildings

By January 1, 2009, the OPM secretary, in consultation with the commissioners of DEP and the departments of Public Works and Public Safety, must adopt regulations for new construction or major renovation of state-owned or -leased buildings that create building construction energy standards that exceed by at least 20% the standards set forth in Standard 90.1. The secretary may revise the regulations as needed.

All state-owned and -leased facilities must offset any GHG emissions resulting from the removal of forests, associated biomass, and soil carbon through investments in land use-based carbon offsets in Connecticut. The OPM secretary, in consultation with the DEP commissioner, must develop standards and verification protocols to ensure that the offsets occur and are permanent, enforceable and verifiable.

Certified Energy Inspectors and Certificates of Occupancy

By July 1, 2008, the commissioner of administrative services must establish the classification of certified energy inspector in OPM. He must develop a training and certification program for this position by September 1, 2008. The bill requires a certified energy inspector to certify, starting January 1, 2009, that a new construction or major renovation project complies with the bill's energy standards before issuing a certificate of occupancy. There are two sections of the bill to which this provision could apply, one of which affects all construction, including single-family residential. The other affects major

construction and renovation projects, but excludes residential buildings of up to four units. It is unclear to which section this requirement applies.

Development of a Smart Growth Code

The OPM secretary, in consultation with the DEP commissioner, must develop a model municipal smart growth code that encourages (1) open space preservation, (2) mixed land use, (3) compact building design, and (4) the availability of public transit and other low-carbon emission transportation alternatives. It must emphasize strengthening and directing development towards existing infrastructure. The secretary must investigate potential incentives to encourage municipalities to adopt the model code, and must report to the legislature on his findings by January 1, 2009.

TRANSPORTATION SECTOR

Passenger and Freight Rail Service

DOT must investigate the potential for expanding high speed and light-rail passenger service and freight rail services in the Northeast. The investigation must include developing new rail corridors, reducing vehicle miles traveled, and analyzing the expanded service's effect on economic and environmental benefits and GHG emissions. The commissioner must report to the legislature by June 1, 2009.

Low Carbon Fuel Standard

The bill allows the DEP commissioner, in consultation with the DOT commissioner and OPM secretary, to adopt regulations establishing a low-carbon fuel standard for motor vehicle and home heating fuel sold in the state. Before adopting the regulations, DEP must determine if a sufficient analytical framework exists to accurately measure full-lifecycle GHG emissions, including GHG emissions caused by changes in land use and other factors. DEP's assessment must include the modeling tools developed by the California Air Resources Board and U.S. Environmental Protection Agency (EPA).

The fuel full-lifecycle analysis must (1) include all stages of fuel and

feedstock production and distribution and (2) adjust the weight for all GHG emissions relative to their global warming potential. Any adopted regulations must mandate the use of a sufficient analytic framework, and establish a declining standard for GHG emissions measured in CO₂ equivalent grams per unit of fuel energy sold, sufficient to achieve at least a 10% reduction in the lifecycle carbon intensity of all motor vehicle and home heating fuels sold in Connecticut by 2020.

The low carbon fuel standard must address issues associated with the production of new fuels, including sustainability, water, air, and soil quality impact, land use change, and food production. The relevant agency (apparently DEP) must consider other state standards when adopting regulations.

BACKGROUND

Climate Change Action Plan and Governor's Steering Committee on Climate Change

The Conference of New England Governors and Eastern Canadian Premiers, representing the six New England states and the provinces of New Brunswick, Newfoundland, Labrador, Nova Scotia, and Prince Edward Island issued a Climate Change Action Plan in 2001 that recommended short- and long-term goals to reduce greenhouse gas emissions. The governor subsequently appointed a steering committee to organize a discussion among businesses, nonprofit organizations, state and local government agencies, and academic institutions of ways to reduce greenhouse gas emissions.

Regional Greenhouse Gas Initiative

RGGI, of which Connecticut is a member, is a multistate initiative to design and implement a flexible, market-based, cap-and-trade program to reduce power plant carbon dioxide emissions in the northeast United States. Connecticut was one of seven states to agree in 2005 to a CO₂ cap and trade program for all fossil-fuel electric generating units of 25 megawatts or more. The program begins January 1, 2009.

Each state will allocate allowances up to the amount of its emission budget, with each allowance allowing a regulated source to emit one ton of CO₂. Under RGGI, instead of giving allowances directly to electric generators for free, states will sell a significant portion through a regional auction, or other means. By law, Connecticut must auction all emission allowances and invest the proceeds on behalf of electric ratepayers in energy conservation, loan management, and class I renewable energy programs. The state may use up to 7.5% of the total projected allowance value for reasonable administrative costs of implementing RGGI (CGS § 22a-200c).

Cap and Trade Program

Under a cap-and-trade program, states set the total amount of carbon dioxide emissions to be allowed from all sources (emissions cap). The emissions allowed under the new cap are then divided into individual permits that represent the right to emit that amount. Companies are free to buy and sell permits in order to continue operating in the most profitable manner available to them. Thus, companies that are able to reduce emissions at a low cost can sell their extra permits to companies facing high costs (which will generally prefer to buy permits rather than make costly reductions themselves).

Renewable Portfolio Standards

By law, electric companies and suppliers have to obtain a certain percentage of their power from renewable resources, such as solar and wind power.

Connecticut Environmental Policy Act (CEPA) and Environmental Impact Evaluations (EIEs)

CEPA identifies and evaluates the impact of proposed state actions that could significantly affect the environment. State departments, institutions, or agencies considering (or funding in whole or part) actions that may significantly affect the environment (including actions that could have a short-term disadvantage to long-term environmental goals) must prepare an EIE before deciding whether to undertake or approve such an action. The EIE must be submitted to various

agencies and is open to public inspection and comment.

Carbon Sequestration

Carbon sequestration is long-term storage of carbon on the earth's surface, underground, or the oceans, so that the buildup of CO₂ concentration in the atmosphere will reduce or slow. In some cases, this is accomplished by maintaining or enhancing natural processes; in other cases, new techniques are developed to dispose of carbon.

CO₂ Equivalent

CO₂ equivalent is a measurement that describes the global warming potential of a particular GHG over a specific period of time relative to CO₂.

Title V Sources

DEP issues Title V operating permits to power plants and other major sources of air pollution subject to the federal Clean Air Act. Permittees must ensure compliance with pollution control requirements. According to DEP, about 126 Title V facilities report to it.

COMMITTEE ACTION

Environment Committee

Joint Favorable Substitute Yea 18 Nay 6 (03/07/2008)